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RAW MATERIALS AND THEIR EFFECT UPON INTERNATIONAL RELATIONS

PERIODICAL
GENERAL
UNIV. OF

ARTICLES

BY

GEORGE OTIS SMITH, L. L. SUMMERS,
E. DANA DURAND, PARKER T. MOON,
EDWARD MEAD EARLE

JANUARY, 1927

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In May, 1926, a Conference on International Problems and Relations was held at Briarcliff, New York, under the auspices of the Carnegie Endowment for International Peace with the cooperation of the Academy of Political Science. In addition to specialists and publicists identified with the outstanding problems of international affairs, a few distinguished representatives of public opinion in foreign countries and a representative group of American editors and journalists were the guests of the Conference and took part in its program.

In view of the widespread interest awakened by the manifesto[1] issued on October 19, 1926, by bankers and industrialists of sixteen nations appealing for lowered tariff barriers in Europe, it has seemed appropriate to reproduce, as a contribution to a better understanding of the problems now under discussion, a number of the addresses on Raw Materials made at the Briarcliff Conference.

There appears to be wide-spread misunderstanding as to the effect of the provisions of the Treaty of Versailles upon the control of certain raw materials that enter into several of the leading industries of the civilized world. The system of mandates established pursuant to the provisions of the Treaty of Versailles opens the mandated territory to world trade much more freely than was the case under the system of colonial control which formerly prevailed. The adjustment of raw material supplies, so far as the people of the United States are concerned, is improved rather than the contrary, by the terms of the Treaty of Versailles.

This whole subject needs examination with reference not merely to the needs of the American people but also to those of the powers which exercise mandates. The large sums of money that have been expended in the administration of newly acquired territories are far greater than any corresponding gains. The colonial trade of Great Britian, for example, has hardly been affected by the relatively small increase of territory and the still smaller gains in raw materials.

NICHOLAS MURRAY BUTLER

New York, December 11, 1926.

[1] See p. 63.

THEORY AND PRACTICE OF NATIONAL SELF-SUFFICIENCY IN RAW MATERIALS[1]

GEORGE OTIS SMITH
Director, United States Geological Survey

National self-sufficiency is only a relative term. It is a balance between variety of demand and adequacy of supply that can never be in perfect equilibrium. A new use of this or that material calls for a larger supply, and we have to import what we had previously been exporting. A substitute is developed, and a deficit that had to be met with imports changes almost over night into a surplus. Or some industrial trouble may create a temporary scarcity that draws foreign material to these shores. Fluctuations in market prices commonly mark the ups and downs of this balance, and the ebb and flow of international trade exhibit the needed corrective to its lack of perfect adjustment.

Among the continents, North America has been so richly blessed with natural resources—climate, soil, forests, water power, and minerals—as to suggest that here is a group of Nature-favored nations. This condition is best exhibited in the well-recognized large degree of self-sufficiency of the United States in raw materials—a strategic advantage which is more than an academic theory, for we approach material independence in practice. Yet this highly advantageous situation has its limits, and there is some danger in the psychological self-sufficiency which discounts resource inventories and discourages national cost-keeping. Indeed, we might describe one phase of our national self-sufficiency by saying that it is the alibi promptly set up by the American industrialist whenever it is suggested that we need to take thought for the morrow. Fear of governmental action of some sort immediately arouses vehement assertions that all is well—we have enough of everything, and even if we haven't we will find it.

If we ask ourselves what degree of national self-sufficiency is most desirable, a satisfying answer is not at all easy, since inter-

[1] Reprinted from the Proceedings of the Academy of Political Science, Volume XII, Number 1, July, 1926, pp. 116–122.

national commerce is based on lack of complete national self-sufficiency, and present-day intercourse between nations as we know it rests on this exchange of goods.

One nation may depend upon foreign supplies preeminently for foodstuffs, another may be deficient in fuel, and it is easy to see the advantage of exchange of products—for example, between England and Denmark. The dependence of a nation upon its neighbors or upon more distant countries may even express itself in a considerable variety of goods—foodstuffs, fibers, forest products, the mineral fuels, the metals, and various mineral raw materials.

In the following outline of theory and practice of national self-sufficiency, I shall refer chiefly to the mineral raw materials, for the obvious reason that I have had more contact with mineral resources than with other materials, but also because minerals can neither be made nor replaced by man's agency—they cannot be found or won unless they already exist, and once they are mined there is no renewal of supply. A lack of platinum ore or a worked-out phosphate deposit therefore presents a deficit quite different from a shortage in wool or wheat. Thus it is that minerals can in a special sense place limitations upon a nation's independence.

In both theory and practice the measure of a nation's material self-sufficiency changes as and because the times change. No demonstration is needed of the fact that the complex civilization makes more varied and larger demands for raw materials than the simpler society. We have only to compare the self-contained life of our colonial fathers and mothers on the frontiers with our present urban life, where a single day's stoppage of transportation begins a long chain of shortages in the necessities of life. In early days the communities in northern New England were self-sufficient in their fuel supply; now a coal strike in Pennsylvania subjects them to real hardship. Then a local supply of iron ore and charcoal provided the metal they needed, whereas now several distant states contribute the ore mixture and the coke that make their steel. Still another illustration: A century or more ago, potash from ashes was commonly produced in the newly settled parts of Maine and was one of the few exportable products of home industry, being sent down to tidewater by canoe or wagon; now German mineral potash by the carload is shipped in to the potato fields of what was then untouched forest.

It is this ever-changing civilization of ours that makes hard-and-fast inventories of reserve supply and definite estimates of future demand impossible. Practice in such matters is fairly certain to discredit theory, and the way of the estimator is hard. For example, take petroleum: When resolved to something approaching common terms, the estimates of United States petroleum reserves made in the last twenty years have varied at the most only seventy-five per cent, but in the same period the annual rate of consumption has increased more than sixfold. Another item of uncertainty in estimates may be illustrated by copper: In 1900 the outlook for ore reserves was based on a requirement of five per cent metal content, but ten years later engineering advances brought into our reserves ore carrying only two per cent.

In making inventories of present and future reserves, facts of geographic distribution and of distance between centers of supply and demand are of prime importance. Mr. Schwab once referred to this "handicap of distance" and in the mineral industry this handicap has been the hundreds or even thousands of miles separating mine and market. Costs of transportation have to be reckoned with when we figure the availability of a specific deposit as a contributor to the Nation's needs.

Our country happens to be of continental extent, with the result that trade between the states possesses a certain similarity to international trade on the Continent of Europe. For example, the movement of Minnesota iron ore to Pennsylvania furnaces and of Swedish ore to furnaces in the German Ruhr means in each case a journey of approximately one thousand miles and a comparable division between rail and water transport. The one outstanding and significant characteristic of these long-distance hauls of ore and coal and metals within the United States comes from the fact that our Constitution prevents the erection of any barriers to commerce "among the several states." The founders of the new nation saw the logical connection between political and economic union, and the interstate commerce clause was their wise recognition of the principle that no state can or should live unto itself.

The country's reserves of one or another mineral are commonly measured in tons, but the dollar mark of price becomes the unknown variable, the presence of which puts wide limits on the tonnage actually available. Those three short words "at a price" will

ordinarily warrant the most optimistic estimates. Thus, with respect to most of the metals we may think of goodly reserves being made available by reasonable price increments, though for a few, such as platinum, nickel, and tin, which are very sparsely distributed in the rocks of the United States, this rule would almost certainly fail. On the other hand, with other metals a high price would make available large ore deposits of a grade far too low to be now utilized.

The true measure of any kind of reserve, however, is the rate of consumption. That rate reacts with and upon price, and it advances in response to inventions, whether of new methods of production or of new uses, and declines in response to the discovery or price-lowering of substitutes. Some, perhaps, of these interactions of price and use can be forecast: the use of lead in storage batteries could stand an increased price that would eliminate lead in paints. Or regarding the rivalry between aluminum and copper, for certain uses, interesting conjectures might be made.

In considering the ultimate limits of a nation's wealth in minerals, it is proper to distinguish between minerals that are dissipated or consumed in the using—as, for example, the fuels—and those of which we are accumulating a working capital—as, for example, iron and copper. Even the same metal may be consumed in different degrees: the copper trolley wire suffers an actual loss in use not shared by the copper transmission line not far away. A still greater contrast between the metal which is repeatedly reinvested in new uses and that which is used only once is afforded by the copper and brass used in building construction, practically all of which eventually returns to the furnace, and the brass wire used in making pins, which leaves the brass works by carloads and never reappears in the metal trade.

Adequacy of supply is a concept that eludes definite assertion; at least two variables enter into the equation when we attempt to translate our ideas of national reserves into years. Even broad classifications of mineral raw materials in terms of international trade are subject to frequent amendment, as is shown by a comparison of such a list given by Professor Leith in 1918 with later lists prepared by a committee of which he was chairman. Yet these very changes have tended to perfect our theories relating to self-sufficiency.

The broadest classification of natural resources is that of energy

resources and industry's raw materials, and it is by reason of its wealth in energy resources that the United States stands out among the nations—here we truly appear self-sufficient for a long future. Both in the quantity of power now used and in the energy stored up for future use the United States is preeminent. This abundance of mechanical energy, with which to lengthen and strengthen the arm of human labor, both increases the demand for industrial raw materials and increases our supply of metals, for instance, through reducing the mining and metallurgical costs. Herein lies the greatest stimulus to inventive genius, and the result is to make us not only greater consumers but greater producers. The net effect on our self-sufficiency in raw materials cannot be predicted.

It is this sufficiency in power that makes America's future seem bright. Careful distinction needs to be made between the adequacy of our water power, of our coal reserves, and of our supply of oil and gas, but together these sources of energy have made the people of the United States the greatest power users of the world—roughly we use ten horse power hours each week day for every man, woman, and child in the country—and yet there is a safe reserve for the future in the coal beds and the rivers of this broad land.

Our natural resources warrant this faith in the future of our national prosperity and progress, but our outlook should be broad enough to include the whole world. Past and present experience teaches us that the greater our industrial development the greater need will we find for foreign sources of raw materials and for foreign markets in which to sell our products. American consumption of raw materials, both for our own use and for export products, is already geared too high to disregard or disdain foreign sources. Exchange of commodities thus becomes more rather than less necessary, and foreign trade is the essential adjunct to the highest development of our domestic industry.

The American corporation in its marketing program has sought to supply the world, even to the point of waging skilful campaigns for creating a demand for the American product, with the result that although the homesick American traveler may miss the vision of his well-beloved flag, rarely is he out of sight of some familiar trade-mark.

The open door in the market sense, as I understand it, means freedom to buy and sell in any country on equal terms with other

non-nationals. Whether we can properly ask or expect equality with nationals depends upon our own practice—the test of the Golden Rule.

American labor with its unique endowment of power can be expected to hold its own in foreign markets. A favorable balance of trade, incident to the exchange of manufactured goods for raw materials, provides new capital, a natural outlet for the use of which, at least in part, is foreign investment, especially in the development of raw-material sources. Indeed, it is essential that American capital take this course to insure the continued prosperity of the home enterprises in which American labor also has so large a stake. And rightly conducted, with the present-day policy of introducing American standards of sanitation along with American methods of mining, the entrance of the American corporation can greatly benefit frontier peoples in connection with the development of their resources. It may be debatable, at present, whether the wide-open door for such development should be regarded as a privilege or a right. The Golden Rule is but another name for reciprocity, and it absolutely determines the inherent equities in any claims we may make for the right to discover and develop the natural wealth in the territory of another nation. Whether or not we accept the doctrine that a Nature-endowed nation should regard itself as trustee rather than owner of its resources, we may see more and more clearly that the common interests in a growing trade tend to bind nations together, and that the ideal is to have the currents of international exchange flow wherever they are guided by the trade winds of supply and demand. Embargoes and export duties at present put some limits on free movement of raw materials, and among the countries of the world the open door to the enterprise of others than nationals is far from universal.

The extraordinary demands of a war program awakened us from some of our dreams of self-sufficiency. Blockades and shipping shortages were the hard facts that demonstrated inadequate supplies of essentials, and incidentally we learned the radical difference between essential and non-essential uses of raw materials. In time of peace the practical advantages of foreign trade appear to offset the theoretical advantages of independence in raw materials. But when the possibility of war is entertained, at once national self-sufficiency in raw materials assumes largest importance. Any

worthy program of preparedness against war must include the possession of reserves of every one of the essential raw materials, in the ground or in stock as the particular limitations of each may dictate. To find the facts and to face the facts, and then to act, is a national duty.

ECONOMIC RELATIONS BETWEEN RAW MATERIALS, PRICES AND STANDARDS OF LIVING: THEIR INTERNATIONAL EFFECT[1]

L. L. SUMMERS

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When the angel of peace and plenty deposited her precious cargo upon this earth, the distribution of it was far from uniform. It is gradually becoming evident that peace and plenty may best be obtained by the interchange of essential commodities. Monopolies improperly administered engender reprisals, and their permanency is as impossible as is the permanency of any policy based on military might, upon which attention has largely been focused. Less importance has been ascribed to industrial might, notwithstanding its potential possibilities of defeating that ethical concord which we may term "justice."

Thousands of years have been spent in an effort to seek some measure of ethical concord between the peoples of a race. A famous English rabbi stated recently that whereas the Jews were unable to accept the Christ of Christianity, they might willingly accept the Christianity of Christ. By enlarging this principle to include the ethics of Confucius, Buddha, Mohammed, Moses, and Christ, regardless of leadership, we find an inherent sense of ethics common to all races and to all men which may constitute a basis for the interrelations between peoples as well as between individuals.

We may accept without controversy the feeling that the growing intimacy of peoples has been fostered by this inherent ethical concord and encouraged by communication and transportation. Nations have primarily developed ethical methods in dealing with their nationals collectively as evidenced by the great lawgivers from the dawn of history, but practical existence has prevented the full realization of these ethical hopes. We may fairly assume

[1] Reprinted from the Proceedings of the Academy of Political Science, Volume XII, Number 1, July, 1926, pp. 123–134.

that modern jurisprudence represents the present limits of realizing ethical ambition. Notwithstanding the underlying unity in national ethics, the expansion of these principles to an international basis has been in continuous conflict with national ambitions, national fears, and national policies.

It is singular that the experience of over a thousand years of chaos in Europe has left so slight an impression. Europe emerged only when isolation was broken down, the feudal baron suppressed and the realms of duke and prince merged into kingdom and empire. History, therefore, suggests the advantages of more intimate relationships and the need of some concrete form of international cooperation. This is now being hastened by the growing conviction that industrial might may develop antagonisms and conflicts just as unethical and fraught with just as much danger as conflicts for military supremacy.

National sovereignty is generally admitted and this admission carries the right of any nation to enact such measures as it may deem proper in order to engage in, protect, or expand its national industries regardless of the effect upon any other nation. The act of one nation may naturally force other nations to act in like manner. Such acts may be offensive, defensive, or altruistic, as circumstances may determine, but in the end they inevitably develop measures of retaliation. Practical jurisprudence has, in general, recognized a difference between offensive and defensive, but when governments grant themselves immunity and their national sovereignty is unquestioned, the responsibility for provoking industrial strife is evaded.

If government were to endeavor to ascertain the effect produced upon other nationals by contemplated government measures, the possibilities of industrial strife would be greatly diminished. Governmental forethought of this kind, however, is so rare as to be almost non-existent. We may well ask how such an international situation could possibly have arisen when it is self-evident that the growing consumption of world's goods coupled with the unequal distribution of fundamental raw materials must inevitably lead to competitive conflict. In general, these resources have not been administered by government. The world war forced the various governments to become parties to the development and administration of a great many of these resources. This action definitely

crystallized the possibilities of governmental cooperation with industry, not only resulting in increased revenues, but increasing the industrial might of government.

Immunity of government has revived the privileges of ancient feudalism. The feudal baron was essentially a product of isolation and not subject to any particular ethical regulations. He could grant himself immunity from the consequences of his acts. This policy of isolation did not, however, perish when he was suppressed. It has endured and is not confined alone to international dealings, for there is abundant evidence of the practice of isolation reflected in inaugurating national policies based upon isolated or uncorrelated facts. The isolationist, always a specialist, bases his acts on uncorrelated facts as opposed to the scientist who deals with correlated knowledge. Our own nation provides typical examples. One of our isolationists wants to diminish the inbound traffic to this country; another isolationist wants to raise the cost of production which results in a decrease in outbound traffic; a third wants to handle the traffic, but finding a diminished traffic as a result of the efforts of the first two, wants to collect a revenue from the traffic which does not move so that he may be able to transport the traffic which does move. He calls this a subsidy.

The views of the isolationist may be tolerated in his own nation since his countrymen are either too much influenced by ulterior motives or too simple-minded to protest against his policy, but it does not follow that the people of other nations will fail to recognize the motives, or have the same simplicity.

If national sovereignty continues to violate principles of international justice, or adopts a policy of isolation, there must always exist an atmosphere of futility surrounding any international conference.

International barter and trade have existed since the flood, and accepted rules of conduct were developed. The injection of government, with its ambitions of greed and avarice and the sword as the unit of value has interfered with what might otherwise have been a normal development.

Governments are concerning themselves more and more with matters of trade barriers, with sovereign power to regulate, suppress or prohibit; but with a self-granted immunity from consequence, and assuming no responsibility. Self-granted immunity, however,

does not eliminate consequences, and man's fear of consequences is more deep-rooted than his fear of God, if only for the reason that the results are more immediate.

Our own nation is now trying a huge experiment of simultaneously restricting the importation of men and materials for the altruistic purpose of raising the standards of living. This purpose is ethical in the highest sense, but is also a development of war conditions. Our old economic friend, the law of supply and demand, suspended animation under war conditions, when there was a huge demand and a limited supply. Why not perpetuate this idea—shut off supply, up goes demand; and there you are! It should be noted, however, that the standards of living of the world are not included in this program. Our altruism applies to our nationals only.

The economist may gasp a little and wonder whether the standards of living are not interconnected with prices of commodities, and therefore with international money values, and if so, whether government fiat can be maintained. He has heard something of fiat money, and wonders if it can be measured in international units, for he has failed to develop an abiding faith in units of political fear or political ambition. Political units are not correlated internationally and therefore are difficult to measure in equivalents.

Some interesting sociological as well as economic features are included in this attempt to elevate standards by a sudden jerk rather than by an orderly process in keeping with the principles of evolution. Are the standards of living of all workers to be raised? Does it apply alike to the agriculturist; to the brain-worker, and to that great class which cannot respond to a demand for immediate increase of output per man? What are the effects of raising the standards of living? Are we to assume that income is raised and prices remain unaffected? Or are prices to be raised simultaneously with income? If an increased cost of production is not to be reflected in an increased price, it would seem necessary to look to science and invention for an increased output per man in order to compensate. That part of industry which cannot respond to an increased output per man will naturally face an increased cost of production. Is there any relation between output and its market? Does a resort to mass production to diminish the cost per unit mean that markets automatically absorb this increased production? Surely, the growth of advertising and installment buying indicates

the contrary and few will dispute that limitations of mass production are reached in a saturated market. Must excess output seek international markets, and is this in keeping with the principle of isolation? If we seek international markets, we must use international units of value and the fiat of government terminates at the national boundary.

Let us consider how universal this raise in standards of living is to be. Domestic labor will gravitate to industries that can pay higher wages. Only the inefficient and defective remain. The agriculturist realizes that standards of living are being reflected in the things he buys. When industry raises the price of labor and attracts labor away from the farm, the farmer, facing a turnover controlled by seasons, and expenditures continually increasing, finds his market definitely related to population and therefore restricted. Further, appetites for luxury seem to multiply more rapidly than appetites for the necessities of life, while still another uncorrelated ethical experiment has affected the consumption of his corn, barley, and rye. Shall he, too, seek international markets for his surplus? Must he curtail production, resort to international "dumping," or abandon the unprofitable farm?

If we consider the sociological effects of this raising of standards of living, it is increasingly evident that they do not apply equally to all. As domestic service becomes more unsatisfactory, gregarious habits of living must follow and the individual home be limited to a size capable of being operated by the family unit. If infancy and childhood continue to lack caretakers, children must become wards of the state, or parentage be restricted. We should not be too critical of these sociological influences, for any final measure of beneficence is determined by the effect on general welfare.

We cannot deal too literally with standards of living—as though they were measurable quantities which would grade 100% for a cosmopolite and 0% for a Trappist Monk. This would be a materialistic rating. From a spiritual standpoint, however, the ratings might easily be reversed. Industrially, at least, there exists a relation between raw materials, prices, and standards of living which require correlation.

Other nations may take advantage of invention and the teachings of science; for our angel of peace and plenty did not confine these gifts to one nation; they belong to humanity and are the

heritage of intelligence and culture. We then face the situation where equality of methods may exist, but with an inequality in the price of man power. This again points to the necessity of international cooperation. The isolationist is no longer the possessor of an oasis in a desert, for the shifting sands may bury his oasis and he becomes a part of the desert once more.

But, say certain thinkers:

> This situation cannot arise because the raising of standards of living is a great ethical principle founded upon the most fundamental belief of evolution—the necessity to survive. Necessity forces management to adopt labor-saving devices; it is not optional. Labor has begun to appreciate and must ultimately accept the principle that it is not hours of work but quality and output that count, with individual skill and efficiency rewarded. Man-power is precious and must not be wasted. The international situation will not reach an equilibrium by dragging down progress, but by uplifting it. It is right to insist on compulsory education and the control of child labor, for this means diminishing illiteracy and developing intelligence, the value of man-power being increased thereby. Mass production can be successfully applied only by intelligence utilizing science and invention and hence intelligence, and not units of masses of men, becomes the unit of measurement of success. Density of population never has been a measure of progress and cannot be considered more than a symptom of our animal origin, a relic of the days of low intelligence when pestilence and famine, scourge and flood, were attributed to the wrath of God, the only means of meeting these devastating losses being to beget more victims. Intelligence demands higher standards of living, and only intelligence can produce them. The fittest only survice. Men may be equal, but not in intelligence.

Have these advocates failed to remember that stern necessity is the taskmaster, and that the weak, the maimed and the misguided have found no place? If ethical teachings are to persist, must not society in general assume obligations? All labor must have a minimum living wage and if the standards of living are raised to a point where many cannot deliver an equivalent value, society must take steps to protect itself or necessity will develop methods of making an easy living without delivering this value. Under such conditions, crime and speculative chance are encouraged.

Foundations are not necessary in our present-day castles of isolation built by popular fancy. This same popular fancy is prone to dwell on Washington's dictum to his countrymen so often quoted with regard to foreign entanglements. Does popular fancy stop to think of what Washington practiced? Even he, expediency dic-

tating, resorted to international cooperation when the aid of France was solicited and accepted.

Events are moving rapidly. To feed the maw of this monster of mass production, the world's materials must be available in ever-increasing quantity. As soon as an isolated nation reaches a point where its own materials no longer meet its rate of consumption, it becomes dependent. It must develop substitutes or the national boundary will limit supply. Nations with the available materials have at once the power to determine what the mass production of their less fortunate neighbors shall be and may exact an exorbitant price, possibly by way of retaliation for restrictions in the past.

The situation today in certain raw materials is illustrated by rubber, where consuming some 70% of the world's output, we produce practically none and control in foreign countries less than 5%; newspaper print, where we produce 50% and import 50%; petroleum where, producing 70% of the world's supply, we are importing some 10%. There is an ever-growing list of these materials, and if we consume them regardless of their origin and continue our policy of isolation, the possibilities of retaliation become immediate.[1]

[I have mentioned three raw materials, as they typify three conditions—one in which we consume a large proportion of the world's supply and produce practically none; another in which we produce about one-half of what we consume; and the third in which we produce a large proportion of the world's supply and yet import about 10%.

At the risk of overstaying my time and your patience, I should like to comment a moment on the international effect of these percentages.

Our distinguished chairman of this evening as chairman of the Price Fixing Board during the war, spent a great deal of time with others on the question of what percentage of a material dominated the price and how this percentage, often a small one, and usually that of an inefficient producer, could be handled. We commonly called this letting the "tail wag the dog." It is illustrated for instance by my war colleague, M. Loucheur, when he states that the 30 million bushels of wheat which France is forced to import fixes the price of the 325 million bushels of wheat which France produces.

[1] The following paragraphs, here enclosed in brackets, were interpolated by Mr. Summers as extemporaneous remarks, at this point in his paper, and are reproduced here because of the great interest which they aroused on the part of the audience.

It is interesting to note that this 30 million bushels of wheat is only a part of the export surplus of Canada and the United States, and the price of this 30 million bushels of wheat is largely dominated by Chicago quotations. You will note that the Winnipeg quotations and the Chicago quotations differ by only a few cents, being in general the same. It has been estimated that the cost of producing a bushel of wheat in Canada is 80 to 85 cents, while it is $1.30 to $1.35 in America, and yet the Winnipeg quotation reflects the American cost of production and not the Canadian cost.

With our high standards of living and high price of commodities which our wage rate supports, we are not affected; but when the French farmer can get this high price of the high-cost producer, he is in a very prosperous condition. He does not recognize the financial situation of France nor is he gravely concerned about the problems of balancing the budget. His prosperity is an excuse for his indifference notwithstanding his national patriotism. When we cross the channel into England and visualize the strike condition now existing [May, 1926], we see the miners offered a 14 or 15 per cent advance on their 1914 wage; that is, a wage of 114 to 115 per cent; but the commodity index of Great Britain is 165 to 170, and this wage rate is therefore inadequate to provide the necessities of life. In general, the farm products reflect indirectly the world prices of wheat and therefore even the meat prices are correspondingly raised as the food fed to live stock in a great measure determines the price of meat. Further, the price of leather is affected very directly by the price of meat, so that in general, in Europe the costs of the necessities of life are reflecting the prosperity of America, but neither their industries nor their wages are directly sharing in this prosperity.][1]

[1] Immediately following this address, the writer was challenged by a number of very able economists who held he was indulging in fantasy and violating the laws of economics. They stated the 30 million bushels of wheat which France imported did not fix the price of wheat in France any more than the 325 million bushels which France produced; that it was the total world's supply and the total world demand that fixed the international price of wheat and that the international market was at Liverpool and not in Chicago or Winnipeg.

A number of spirited arguments were indulged in and I told my critics that they have never known what the world's supply and the world's demand for any year has been. The incomplete figures they collect are secured from twelve to twenty-four months after the wheat has been consumed for that particular year. I beg to challenge the economists in thus rigidly applying the law of supply and demand for in a large number of cases they neglect the element of time. Time enters specifically into the application of the law of supply and demand. One may call this a relativity because it is the relation of the flow of supply to the current demand. My critics' attention is called to the fact that Liverpool does not fix the world prices; it simply reflects the world prices and the world movements of wheat. The deliveries and settlements of the grain exchanges are on a monthly basis and the actual quotations change weekly, daily, and hourly. I compare such economic arguments with the following analogy. All will agree that rainfall is the source of supply

We cannot fail to observe that the efforts this nation has made to follow a policy of isolation in the restrictions it imposes have already uncovered serious weaknesses—first, because it must negotiate beyond its own borders for essential raw materials; second, because it must go beyond its own borders to market its excess production. Therefore, both in the beginning and in the ending of this policy there appears to be a limit. We have constructed a building, but the foundation appears to be cracking and the roof leaks. We may continue to jazz, but only in parts of the building.

Is there a remedy? It would seem that careful diagnosis of the disease is essential lest some cure may prove only a nostrum. Trade has adjusted its difficulties in the past by means of bargaining. If a rubber grower, for instance, realizes the value of his product which a consumer requires, he has the right to set the price. Is one government to erect trade barriers protecting a wage rate of $5.00 per day, and deny another government the right to erect compensating barriers, and insist, for instance, that their wages remain at 20 cents per day? It may be claimed that their standards of living are not equal, or that the intelligence of their workers does not warrant an increased rate. This may be true. But we are talking now about one nation assuming a right and denying the same right to another nation. Trade would attempt to solve this difficulty by finding

of water power. But to hold that this directly controls the supply of power is an obvious fallacy, neglecting other important factors. The engineer must know the height of the dam and the reservoirs that are available to equalize the flow. The levers that control these reservoirs are like the levers that the large grain dealers control. The vast elevator systems of America and Canada are built for the purpose of controlling the flow as well as for storing the supply. The grain dealers must have daily information concerning the visible supply, the cargoes afloat and the arrivals. It is this rate of flow, with the power to augment or diminish it, which affects the world's prices. The mere fact that the American Government has seen fit to interfere with the trading of grain on the Chicago market and in general the blind idea that short selling and large market operations are wrong has detracted from the importance of the Chicago Board of Trade and made Winnipeg the free grain market and therefore the greatest primary market in the world. *Economic dementia* simply causes economic centers to migrate. It does not exterminate them.

As opposed to these efforts to regulate the grain market, it is interesting to point to the Canadian Government's licensing of elevators and fixing prices for handling and storage, in an effort to make freedom of opportunity, rather than to suppress the freedom of operation when the world situation is in a constant state of flux. I am free to admit that with the return of Russia and Roumania as producers of an exportable surplus of wheat, the world's market will not respond as readily to the levers operated at Chicago and Winnipeg. My critics must bear in mind that demand itself is a variable and is modified by the use of substitutes and when the huge crop of Russia's rye appears on the world's consuming market, another important element in the demand for wheat will again be at work. Just as the substitutes for wheat affect the demand, so the amount of wheat used on the farm for seeding and what is known as the seasonal carry-over, affects the supply; so, of the total crop some 25% never appears on the world's markets. In cases of grave shortage, some of this is coaxed into the world market, but it is these factors affecting both the supply and demand and the impossibility of getting any accurate figures from Russia, China and India which has made it impossible to secure correct figures on the world's total supply or the world's total consumption.

out what the rubber grower wanted which was difficult for him to obtain. We might trade him containers for his rubber sap or assist him in developing his resources. This might satisfy him, but his government steps in and seeks compensation. Our sap containers may not interest his government. Furthermore, it may not desire alien interests to share potential possibilities, and may desire payments in political units of value. A rubber consumer, however, cannot purchase these political units for purposes of exchange, as this involves the question of bribery. He soon realizes that in dealing with governments, he faces new obstacles. Shall governments adopt the methods of trade and inaugurate a system of bartering? Trade one barrier against another? We must admit the necessity for barriers, whether used to produce revenue or to equalize conditions. The erection of barriers by government ostensibly for the purpose of creating equality often develops inequality by intensifying some natural advantage carrying inherent political possibilities. Governments, as trustees for their people, dare not freely trade in international political possibilities. Ethics and politics are poor bedfellows. Politics shift. Ethics remain.

Justice, more enduring than politics, has introduced reciprocity into international dealings. Reciprocity did not contemplate the reciprocal raising of one barrier to meet another, nor did it contemplate any nation imposing a barrier on commodities not advantageously produced by it, which might seriously affect the welfare of a nation producing them. Rather, reciprocity involves the acceptance of some commodities from nations better qualified to produce them. Reciprocity involves an interchange of selected man power wherever of mutual benefit. In general, reciprocity contemplates an international correlation of restrictions recognizing that the injuries inflicted require as much consideration as the advantages obtained.

Two courses are definitely indicated—one leading to isolation; the other to international cooperation. The one confines distribution largely to national boundaries and depends upon available raw materials or the production of substitutes. The other contemplates a world market and points to methods which will develop and distribute world materials equitably.

All ships of commerce sail the seas unmolested and unrestrained. Sovereignty and dominion formerly exercised have now ceased to

exist. Gone also are piracy and the fear of might. Dimly we recognize and vaguely we realize an international awakening where, without coercion, might is displaced by voluntary acceptance. In that day of voluntary acceptance, which also means voluntary relinquishment, we place our hope, for it is the day of international justice. We cannot ignore Ethics; or Justice, its offspring; one, the mother of civilization, the other, its sole defender.

ECONOMIC AND POLITICAL EFFECTS OF GOVERNMENTAL INTERFERENCE WITH THE FREE INTERNATIONAL MOVEMENT OF RAW MATERIALS[1]

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As a background for a discussion of the principles involved in governmental interference with trade in raw materials, it is worth while to present the salient facts with regard to three typical commodities as to which governments are in fact at the present time engaging in such interference. We shall take as examples rubber, coffee, and nitrates.

The enormous increase in the world demand for rubber, due primarily to the development of the automobile, is familiar to all. World production increased from about 80,000 tons in 1910 to more than 500,000 tons in 1925, and imports into the United States increased from 40,000 tons to 397,000 tons. Consumption in this country during recent years has represented approximately seven-tenths of total world consumption. Formerly rubber was chiefly obtained from wild trees, largely in Brazil and other tropical American countries. Plantation production, chiefly in southeastern Asia, began on a large scale just before the World War, and is now the dominant factor. Costs of plantation rubber are far lower than those of wild rubber, which explains the fact that during most recent years, until the great advance in 1925, prices have been much lower than before the war.

A dominant proportion of the world's rubber is at present produced in British Asiatic territory, principally Malaya and Ceylon. From 1918 to 1920 output in this British territory was almost three-fourths of the total of plantation rubber, but the proportion has since fallen, and was about 57% in 1925, while the plantation rubber in that year represented about 93% of all rubber produced. The area planted in this region had increased immensely during the war,

[1] Reprinted from the Proceedings of the Academy of Political Science, Volume XII, Number 1, July, 1926, pp. 135–144.

throughout which and for two years following high profits were realized. For a single year only, 1921, following the lapse of the post-war boom, United States imports of rubber fell off sharply and the average import value per pound, which had been 43 cents in 1920, fell to 18 cents in 1921. More trees meanwhile were coming to bearing age. Large stocks were accumulated so that although imports rose again greatly in 1922 and much exceeded even post-war boom records, the price was still relatively low. It should have been easy to foresee that United States consumption would continue rapidly to increase and to catch up with productive capacity, but the planters in the British colonies were unwilling to wait for the recovery of the market through normal causes, and a scheme for restricting exports of crude rubber was devised. This became effective November 1, 1922, with the announced intention of maintaining a price of 36 cents per pound (18 pence, London) which was declared to be fair. A "standard production" was fixed, each plantation being given a definite quota, and the percentage of standard production that could be exported (save by the payment of a prohibitive tax) was fixed from time to time according as the price of rubber should fluctuate above or below 30 cents. At the beginning of 1925 the average price in New York was a little over 36 cents per pound, and the percentage of exportation allowed as compared with the standard was only fifty. "Standard production" had been increased somewhat since the initiation of the scheme to take care of the new trees, previously planted, which came into bearing.

As a result of these restrictions in the face of steadily rising demand, the stocks which had been accumulated in London were rapidly reduced: from 72,000 tons at the end of 1922 they reached 29,500 tons at the end of 1924 and only 6,000 tons at the end of 1925. Stocks in America also fell off, though not so greatly. Manufacturers of rubber products, fearing a shortage, scrambled to get supplies. Advantage of the situation was taken by speculators. A runaway market resulted and in the short space of seven months the New York price nearly trebled, averaging $1.03 for July with a maximum on one day of $1.21. Of course, the permissible quotas of exportation were raised, but as the plan contemplated changes only once a quarter the quota was still below standard production, namely, 85%, at the close of 1925, and only in February, 1926, was it raised to 100%.

Rubber imports into the United States in 1925 cost us $430,000,000, or about $200,000,000 more than they would have cost at 1924 prices. Had the levels attained during the last half of the year continued through 1926, we should have had to pay several hundred millions more this year. In February rubber imports were valued at over $70,000,000.

Active agitation in the United States against these exorbitant prices, in which the Department of Commerce took an important part, resulted in curtailment of tire consumption and ultimately, after the expiration of contracts previously placed, in a reduction of imports. The result was a fall in the price of rubber quite as rapid as the advance, although by no means reaching as low a figure as at the start, the prices now ranging between 40 and 50 cents per pound.

Although not a few voices in Great Britain itself have been raised in protest against the continuation of the restriction scheme, it is still in effect. The so-called standard production has been and is considerably less than the actual capacity for production of the British territories, but the exports are still limited to the standard production, and as of May 1, 1926, a new step was taken aiming even more effectively to maintain prices. It is provided that should the London price of rubber fall below 1 shilling 9 pence (about 42 cents) the exportable quota shall be reduced by 20%, and there is no arrangement for increasing the quota above the "standard production," no matter how high prices may go.

Coffee differs from rubber in that the demand increases only gradually. World production is in the neighborhood of 2,700,000,000 pounds annually, of which Brazil produces about two-thirds and the United States consumes about half. On the average for the last three years the United States has taken about 55% of all Brazilian exports of coffee.

At three different times, about 1908–1909, again in 1918 and again in 1921, the State of Sao Paulo, backed by the central government of Brazil, has bought up coffee at times of relatively low prices and held it off the market. Since that time the Brazilian authorities have maintained the policy of limiting the quantity of coffee which can move to the ports and thus be exported. It is impossible to trace any such spectacular effects on prices as in the case of rubber,

particularly because control in one form or another has been exercised over such a long period of time. It is noteworthy, however, that during each of the last four years the average value per pound of coffee imported into the United States has risen. For 1921 it was about 10½ cents and for 1925 over 22 cents. Coffee shows much greater advance over pre-war years than most commodities; the average import value from 1906 to 1915 was less than 10 cents.

Chilean nitrate is a natural monopoly subject only to the competition of modern nitrate fixation from the air. Practically no nitrate is used in Chile itself. The United States takes nearly half of the Chilean exports, paying in the neighborhood of $50,000,000 annually. There is an association of the producers embracing all except two companies owned by United States capital. The Chilean Government is a party to the association, having four of the eighteen directors. Output is limited and quotas fixed for each producer. Control of this sort has been practiced in one form or another for a long time so that it is impossible to trace through price changes the effects resulting. The Chilean Government imposes an export tax of about $12.50 per long ton, which adds about one-third or one-fourth to the selling price. A recent expert investigation by the Department of Commerce indicated that, apart from the export tax, the present price of Chilean nitrates, held down somewhat by competition of artificial nitrogenous products, is not very much above cost of production with reasonable profit to the less efficient producers but there is reason to believe that the more efficient can produce at a decidedly lower figure.

With these facts before us, and bearing in mind that there are a number of other similar controls of export of raw materials and a manifest disposition to extend them, let us consider the ethics of such policies and their political and economic effects.

In the first place, it should be noted that we are discussing governmental controls of exportation, not those resulting from purely private combination or association. However indefensible and dangerous may be, at least in some cases, private organizations for controlling domestic and export supplies and prices, they are much less likely to cause grave abuse than when the government steps in. Private organizations are limited by the fear of the secession of their own members or of the entrance of new competitors in the country

itself, but governments with their sovereign power are subject to no such brake. Moreover, governments work more ponderously and awkwardly and usually more unintelligently. Their measures may lead to unanticipated and unsought-for results, and the machinery cannot readily and promptly be adjusted to prevent or cure these. The British colonial authorities probably would have preferred to see less vertical advances in rubber prices as a result of their control.

In the second place, the controls which we are discussing go far beyond any mere desire of governments to collect legitimate revenues. There may be exceptional cases in which a government is justified in levying an export tax as the most workable method of obtaining revenue from a given industry. There may be, at least in some cases, no very great difference, in effect on the outside consumer, between a tax on exportation of some commodity of which the local consumption is small, and a tax on the profit of concerns engaged in producing that commodity. A reasonable export tax, however, for revenue purposes is a very different thing from an exorbitant one, or from a tax or any restrictive measure which aims not at government revenue but at boosting prices for the benefit of producers.

Again, governmental controls of raw materials which are at present attracting attention are by no means designed to conserve limited natural resources for the benefit of the people of the home country. No doubt there may be cases in which, to prevent unduly rapid depletion of mineral resources or of virgin forests, a government may be justified in restricting output; though in that case it ought obviously either to hold down prices to domestic and foreign consumers or to take the excess above a competitive price for the general treasury, rather than to permit excessive profits for producers. While perhaps the highest ethics would demand in such a case that the outside world should be given a share proportionate to its needs out of the restricted production, there is a good deal to be said even from the ethical standpoint in justification of the right of the people of a given country to consider its natural resources as primarily for their own benefit. In the cases at present attracting attention, however, we have to do either with agricultural products in which there is no question of depleting natural resources, or with a product, such as nitrate, which is in little demand in the home country itself.

Finally, it seems to me that a clear distinction may be drawn as respects ethical and economic aspects between government controls of exportation and protective tariffs restricting importation. Whatever one may think of the effects of a given tariff system upon the well-being of the people of the country maintaining it, the foreigner has far less ground to complain of such measures than of restrictions upon exportation of raw materials and the fixing of their prices. If a protective tariff in fact builds up the industries and promotes the national welfare of the country imposing it, the outside world, considered as an aggregate, can scarcely fail to profit. In that case, the country by its greater buying power becomes a better market, not of course for the products subject to high tariffs, but for other classes of products, especially raw materials. Countries producing these gain. I have no occasion here to discuss the tariff question but it is clear that it is an entirely different question from that of governmental control of exports.

With these distinctions thus drawn, the question still remains as to the working of these restrictive policies with regard to exports.

Experience confirms what reasoning would lead us to expect, that government control of raw materials is likely to lead to very serious abuses and injustices. If it succeeds temporarily or permanently in raising prices above a fair cost of production by the more efficient concerns, it works obvious injustice to consumers of other countries. There is a great difference in moral principle between measures which seek to promote the welfare of the people of a country with no deliberate intention of injuring other people (even though incidentally some little damage may result here and there to others), and measures which aim directly to exploit the foreigner. The injury has wider repercussions than are obvious on the surface. If country "A" by its action injures the consumers of country "B", it also indirectly does damage to producers of other commodities in still other countries whose well-being depends upon their trade with country "B". There is danger too of competition in the business of "spoiling the Egyptians," to say nothing of reprisals by the Egyptians. If all over the world countries engage in a scramble, the one to exploit the other, there is simply no limit to the economic harm which is bound to result, as well as no end of the ill-feeling and friction.

Government restrictions on exportation of basic materials are

all too likely to go farther in boosting prices than originally contemplated. No doubt in some cases these policies have been initiated under strong pressure, where abnormal conditions had brought prices temporarily to an unreasonably low level. There was a powerful temptation not to wait for things to adjust themselves through recovery and growth of demand or through elimination of an undue number of producers by competitive processes, but to devise some means of immediate relief. No doubt most of those favoring such plans have contemplated at the outset only such a moderate advance in prices as would prevent loss. But once such a policy is entered upon and some success achieved in advancing prices, producers and government authorities are all too likely to become greedy and to push the limitation of output and the advance in prices to wholly inordinate lengths. The sweets of power once tasted, the appetite grows apace.

It must be borne in mind too that the producer of a basic raw material is not dealing directly with the final consumer, or even, ordinarily, with the manufacturer. It passes through the hands of middlemen. Where normal laws of supply are abrogated so that the course of prices cannot be forecast, speculation is bound to become rife. Under the influence of excitement and uncertainty prices may jump far higher than even the restricted supplies available justify in relation to demand. The advance in prices may by no means all go to the producer; the greater fraction may redound to the benefit of the fortunate speculators. There is no doubt that such was the case in connection with the recent astonishing advance in rubber prices.

Government control of supplies of commodities is likely to lead to heavy fluctuations in prices. A runaway market is almost sure to react violently. It is bad enough for legitimate dealers and manufacturers handling or using a given raw material to have to guess at the changes in supply and demand due to normal causes, without having to guess at what governments may do—governments of producing countries and of consuming countries alike—or as to how prices will react to these abnormal interferences with supply and demand. The risks of doing business are enormously increased under these circumstances. In the case of rubber, for example, it is necessary for manufacturers to buy their supplies long in advance of the sale of finished products. If prices of raw rubber rise sharply,

the manufacturer is likely to be criticized if he at once puts up the prices of tires and other finished products into which is entering rubber bought some months before at lower levels. But if he fails to do so with sufficient promptness, he stands to be caught in heavy losses later on if raw material takes a tumble, since public opinion and competition of other manufacturers are almost sure to force rapid reductions in the prices of finished products. In other words, violent fluctuations of crude rubber prices involve very grave risks to rubber manufacturers and legitimate dealers.

Apart from the injury to the interests of other countries which tends to result from government interference in export of raw materials, there is in many, if not most cases, a probability that the country undertaking such measures will ultimately find its own well-being harmed.

In the first place, it is likely in the long run to lose, relatively and perhaps absolutely, in volume of business. If the controlling country has no absolute monopoly, the restriction of export and the boosting of prices furnishes a powerful incentive to the development of competitive production in other countries. This may readily go so far as ultimately to break down all possibility of control by any single country or group of politically affiliated countries, and to leave their producers with but a small share of the world market. It is noteworthy that production of plantation rubber has increased far more rapidly in non-British than in British territory during the years since restriction was begun. The British share of total plantation rubber output in 1922 was 72%, in 1925, 57%. Output in the Dutch East Indies had increased more than 85% during this period. The great advance in rubber prices in 1925 even stimulated wild rubber production in Brazil, although wild rubber cannot hope to compete with plantation rubber when prices are moderate. There are large areas in the world where rubber can be produced, and while it takes some years to get it under way, it is obvious that continued high prices would be bound gradually to bring such areas into competitive use.

Moreover, extortionate prices cut down demand, and it is impossible to foresee how much in any given case this reduction may become, especially when national feeling is brought into play as well as purely economic forces. Reference has already been made to the manner in which American consumers of rubber met the

situation during recent months. Encouraged by exhortations and suggestions as to methods from organizations of manufacturers of rubber and of automobiles, and from the Department of Commerce, automobilists cut down sharply their demand for tires, using their tires more carefully, repairing instead of scrapping them, making them last longer. From October, 1925, to March, 1926, it is estimated that sales of automobile casings by dealers were about 25% less than during the corresponding period the year before. The quantity of crude rubber used for manufacturing tire-repair materials increased from 2,908 tons in 1924 to 4,319 tons in 1925, and during the last quarter of 1925 the consumption for this purpose was more than 70% greater than in the corresponding period of 1924. There was also a powerful impetus to the reclaiming of old rubber. Shipments of reclaimed rubber by American plants were 55% greater in 1925 than in 1924, and during the first quarter of 1926 more than one-fourth greater than during the corresponding period of 1925.

Over-grasping boosting of prices of raw materials too puts the world on its mettle to find substitutes, and in this modern day of rapid progress in physics and chemistry, there is no knowing what may be brought forth to put out of business the producers of present commodities.

Finally, to my mind the most fundamental objection of all against the policy of restricting exports of raw materials—an objection both from the standpoint of the outside world and from the standpoint of the country maintaining the restrictions—lies in its tendency to check progress in efficiency of production. It is a damper to enterprise and ambition. The great merit of competition in industry is that it eliminates the unfit and lets the fit survive and grow. It not only permits progress but tends to compel it. Even a private combination of producers, aiming to restrict output and prices, is likely within itself to give some chance for the more efficient producer to get a bigger share of the business as time goes on. With a government control of output, all is different. Subject to the political influence of producers—an actual majority of whom are often more or less inefficient while only a smaller number can produce at reasonable cost and can make progress in methods—the government tends to perpetuate the inefficient and hold down the efficient. It must give quotas for production or exportation to the high-cost

producers at the margin, and in order to do so must restrict the quotas of the low-cost producers. There is no politically feasible way of eliminating the incompetent, and consequently no way of giving adequate incentive to the more competent to improve their methods. Nothing can be more stultifying to progress in industry than government interference with the expansion of the fit. If the world is to move forward it must be free from swaddling bands of this sort.

This is far from being an ideal world. It is vain to hope that in the near future the political and economic relations among countries will become altogether amicable. The lion will not lie down with the lamb, to say nothing of the elephant or the bear. But the people and the statesmen of the various nations of the world do have it largely in their power to refrain from adding to the causes of friction among them as well as gradually to wipe out some of the present causes of friction. There is grave danger that further extension of the recent tendency toward the establishment of government controls of exportation of raw material will go contrary to all the hopes and aims of those who are seeking world peace, economic and political. Discriminatory measures breed retaliation, and interferences with the normal laws of economics tend, once started, to pile up like a rolling snowball and to pile up at the same time international illwill.

RAW MATERIALS AND IMPERIALISM[1]

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"The fight for raw materials plays the most important part in world politics, an even greater rôle than before the war." These are the words of Dr. Schacht, president of the German Reichsbank, as reported in *The New York Times* of March 26, 1926. And his conclusion was that "Germany's only solution is her acquisition of colonies." Dr. Heinrich Schnee, former governor of German East Africa, conspicuous since the Great War in the agitation for the restoration of some colonial territory to Germany, has made similar pleas, based on the assumption that great industrial nations need colonies to supply them with raw materials.[2] Fascist Italy "must expand or suffocate," Mussolini asserts.[3] France owes her greatness to her colonies, which provide her with raw materials and markets, so we read in a recent book issued under the auspices of the General Staff of the French navy.[4] Nationalistic monopolies of raw materials, Secretary Hoover warns the world, "can set up great malignant currents of international ill-will."[5]

Some of the reasons which lie behind such statements as these are worth stating and criticizing in this discussion, brief as it must be. All important industrial nations have become more and more dependent on imported raw materials. In some cases it is cheaper to import than to produce the raw materials: that is why England imports Australian wool. In other cases the domestic supply is inadequate: that is why Italy has to import iron. Often industries are established where they can obtain coal or power, labor, and capital, but not the raw materials they require: such is the situation of the British cotton industry. Or again, an industry may have

[1] Reprinted, by permission of the Macmillan Company, from *Imperialism and World Politics*, New York, 1926, pp. 543–557.
[2] H. Schnee, *German Colonization Past and Future* (London, 1926), and address in *Proceedings of the Academy of Political Science*, XI, no. 4, pp. 172–173.
[3] *N. Y. Times*, July 24, 1926.
[4] J. Tramond et A. Reussner, *Éléments d'histoire maritime et coloniale contemporaine* (Paris, 1924), pp. 410–411.
[5] Speech before Chamber of Commerce, Erie, Pa., Oct. 31, 1925.

local supplies of its principal raw materials, and still need to import minor but essential ingredients: as the United States steel industry imports chromite from Rhodesia and Cuba. Taken in the aggregate, such imports have reached immense proportions. The value of imported raw materials consumed by the industries of the United States is shown in the following table:

Year	*Imports of Raw Materials*
1850	$407,141
1875	50,387,008
1900	210,391,745
1925	1,430,012,763

Great Britain's needs are even greater. In 1900 she used foreign raw materials worth 172 million pounds sterling; in 1924, 400 millions (two billion dollars). France in 1925 imported twenty-nine million francs' worth; Germany, six and a quarter billion gold marks' worth. In short, billions of dollars, francs, marks, lira, yen, and hundreds of millions of pounds sterling are reaching out into the most remote quarters of the earth to secure the ores, the fibres, the gums, which are fed into the hoppers of their factories.

The quest for raw materials becomes imperialism when it deals with backward and tropical countries. Sir Frederick Lugard, British empire-builder, writes: "The tropics produce in abundance a class of raw materials and foodstuffs which cannot be grown in the temperate zone and are so vital to the needs of civilized man that they have in very truth become essential to civilization. It was the realization of this fact which led the nations of Europe to compete for control of the African tropics."[1] And not only the African tropics! The process of extending control over tropical sources of raw materials is quite as active in the American, Asiatic, and Pacific tropics. One thinks of Cuban sugar and tobacco, Mexican oil, Manila hemp, Indian cotton, Malayan rubber. In tropical countries the large-scale production of plantation products requires fairly stable and favorable government. Planters want protection for their crops and their persons; oil men must obtain concessions; their bankers insist on security. How closely this situation is bound up with imperialism must be clear. One should add, that the same motive is operative also in non-tropical countries which have raw materials without strong and stable governments. Japanese efforts

[1] *The Dual Mandate in British Tropical Africa* (1922), p. 43.

to obtain control of Chinese iron mines and coalfields may perhaps serve as an illustration.

The tendency of business men actively engaged in obtaining raw materials to ask protection and aid from their own government, and even to demand annexations, meets with a favorable response from the statesmen and the public in so far as the idea of national wealth is popular. Many a Frenchman, for example, looks on the phosphate mines of French North Africa as an addition to the wealth of his nation. Such material treasures are something the public can visualize, something the statesman can understand. Who can doubt that a colony with rich mines, or a mandate permeated with petroleum, is a prize worth winning, worth quarreling for, worth fighting for? It requires either sophistication or high-mindedness to entertain such doubts. The altruist denies that war for material gain is ethical. The student of economic imperialism denies that the average Frenchman gains any substantial share in the Tunisian phosphate mines, or the average Englishman in the Kimberley diamond fields. If an Englishman wants an engagement ring, he pays for the diamond, as if he were not a fellow-countryman of the late Cecil Rhodes; if a Frenchman wants phosphate to fertilize his farm, he buys it at a price, and at approximately the same price that a Spaniard or an Italian would pay.

The desire for colonial supplies of raw materials has been stimulated since the Peace Conference by the inter-Allied debt situation and the depression of European exchanges. It has been argued that France can more easily maintain the franc and meet her obligations if she obtains raw materials from her own colonies than if she has to buy them from foreign countries. Prominent British statesmen have applied the same principle to their own debt problems. Premier Baldwin himself has asserted that the more Britain turns to her own Dominions for raw materials, rather than to America, the better it is for British exchange and for the payment of the British debt to the United States. At a recent conference on international relations,[1] a distinguished Swiss journalist, Dr. William Martin, expressed the opinion that the European countries needed to depend on their colonial resources in order to pay their debts to America. At the impressive British Empire Exhibition at Wem-

[1] National Conference on International Relations and Problems, Briarcliff Lodge, May, 1926. See the discussions, in *Proceedings of the Academy of Political Science*, New York, July, 1926.

bley the idea is put in the form of the slogan, "Keep your money in your Empire." Into the intricacies of exchange, we cannot enter here. But we may observe that this point of view is exaggerated, to say the least. Except for Great Britain no European country can expect in the near future to depend on its colonies for the major portion of its raw materials. Italy, England, and France are paying deficits on colonial budgets and investing large sums of capital in colonial debts, railways, and other enterprises. Colonial raw materials have to be paid for, even though in most cases the payment is not made through international exchanges.

While Europe is growing more interested in raw material imperialism because of debts to the United States, the latter is being aroused by its Department of Commerce for very different reasons. Secretary Hoover discovered the fact that "there are at present governmentally controlled combinations in nine[1] raw materials," our imports of which, if prices remain at their present level, "will cost us about $1,200,000,000 for 1926." And there are "some twenty or thirty other commodities in the world which could likewise be controlled by action of one government or by agreement between two governments." The attempt of governments to control prices of such monopolistic supplies "raises a host of new dangers." Mr. Hoover believes that it "not only threatens the sane progress of the world but involves great dangers to international good will." And he informs us that the Department has "endeavored to stimulate our industries to provide for themselves independent sources of supply."

The rubber episode[2] was significant in showing not only the possibilities, but also the limitations of such experiments. It helped to raise prices little when prices were too low, and too much when prices were too high. It occasioned a panic in the United States and called forth exchanges of recriminations across the Atlantic. It handed over to the Dutch a large share of the business which the British producers had hitherto enjoyed, and it stimulated American rubber companies to seek rival sources of crude rubber outside British Malaya. It was certainly no unmixed success.

[1] Egyptian long-staple cotton, camphor, coffee, iodine, nitrates, potash, mercury, rubber, and sisal. See Secretary Hoover's statement in *Trade Information Bulletin No. 385*, issued by the Department of Commerce. Also, *Crude Rubber, Coffee, etc., Hearings before the Committee on Interstate and Foreign Commerce*. House of Representatives, 69th Cong. 1st Sess., on House Resolution 59 (1926).

[2] See Parker T. Moon, *Imperialism and World Politics*, pp. 546–550. See also pp. 25–27 and 56–58 of this document.

Another kind of nationalistic interference with colonial raw materials has been exhibited here and there in the imposition of differential export taxes. The purpose of these is to give manufacturers in the mother-country an advantage over other manufacturers in purchasing raw materials. For instance, when the United States acquired the Philippine Islands the export tax on Philippine manila was increased from 37½ cents to 75 cents per 100 kilos and in 1902, while this heavy tax continued to be levied on exports of manila to foreign countries, manila shipped to the United States was freed of duty. Thus foreign cordage manufacturers had to pay 75 cents per hundred kilos more for their manila hemp than was paid by Americans.[1] Similarly the British imposed differential export duties on tin ore mined in the Malay Peninsula, in order to give the tin smelters of Cornwall an advantage over their rivals in Perth Amboy and Brooklyn. Again, in 1920, in order to wrest from Germany the industry of crushing oil from the palm kernels produced by British West Africa, the British imposed a differential export tax of £2 a ton on palm kernels shipped outside Britain. Incidentally they injured an American palm oil industry which had sprung up rapidly since the beginning of the war (that is, since the blockade had stifled the German industry). On the whole, however, such differential export taxes have been relatively rare, and comparatively unimportant in international life. Yet to some extent they have contributed to the development of the imperialist attitude toward raw materials.

Perhaps the most important factor in popular psychology regarding this problem is the feeling that it is perilous to be without supplies of necessary war materials in time of war. In a world where peace is insecure, so this train of thought runs, a nation should endeavor to provide itself with adequate materials, under its own flag, where no foreign nation can cut them off. Those who consciously or unconsciously allow this idea to influence them usually forget that obtaining a safe supply of this or that material is quite a different thing from having assured supplies of *all* the essential war materials. The United States is unusually generously endowed by nature, yet it is stated on good authority[2] that there are at least thirty materials essential to war, which are produced either not at all or in quite

[1] U. S. Tariff Commission, *Colonial Tariff Policies*, pp. 590–600.
[2] See Wm. Redfield, *Dependent America*, p. 209.

insufficient quantities in the United States.[1] Some of these—chromium and shellac, for instance—are items that are little in the public eye, yet vital in war industry. To obtain adequate supplies of them all would be a sheer impossibility for the United States, and even more fantastic for other countries. Real self-sufficiency in war-time materials is a delusion.

The intensification of imperialist interest in raw materials, especially since the war, has meant keen international rivalry and has done much to embitter international relations. If the economic results had been wholly satisfactory, perhaps one could pay the political price with less regret. But too often the economic results have justified neither the price paid nor the optimism with which many imperialist ventures have been launched.

This fact may serve to suggest a thought that is devastating to the conventional imperialist view of the raw materials problem. The popular notion is that a nation naturally obtains the raw materials which its colonies produce. The actual facts, however, do not conform to this rule. France owns New Caledonia, and on that island are found certain rare minerals, notably cobalt and nickel; but the cobalt of New Caledonia goes to Belgium, and two-thirds of the nickel goes to Belgium. The British own the Malayan colonies which produce more than half the world's crude rubber, but the crude rubber goes mainly to the United States. The graphite of Madagascar goes to England, not to France. French imperialists are eloquent on the topic of Tunisian phosphate, but French official statistics show that France receives less than half of the phosphate and other mineral produce of Tunis.

The point is that raw materials, in general, are color-blind. They recognize no national flag. They follow the laws of supply and demand, and of distance and transportation costs. They obey economic rather than political control. The producers have the familiar human tendency to sell to the highest bidder, regardless of nationality. Only by embargoes or by the imposition of differential export taxes can this tendency ordinarily be overruled, and such methods are rarely employed. They cannot be employed generally. If France should forbid Tunisian mines to sell phosphate to foreign countries, it would probably injure the prosperity of

[1] Antimony, camphor, chromium, coffee, cork, graphite, hemp, hides, iodine, jute, flaxseed, manganese, manila, mica, nickel, nux vomica, opium, platinum, potassium salts, quicksilver, quinine, rubber, shellac, silk, sodium, nitrate, sugar, tin, tungsten, vanadium, wool.

Tunis and of influential French capitalists, who would register effective protests. If Great Britain, instead of merely introducing a scheme to stabilize prices for the benefit of British Malayan rubber plantations, should ruin those plantations by prohibiting all export of rubber to the United States, the British Malayan colonies would become a grave problem, and the plantation owners would move heaven and earth, including Downing Street, to repeal the prohibition. This point need not be overstated as an inviolable law; on the contrary, we know that economic "laws" can be overruled to some extent by political interference. Nevertheless, the economic self-interest of colonial producers is strong enough to act as a formidable obstacle to any attempt on the part of an imperialist nation to monopolize an important raw material produced in its colonies but needed by foreign consumers able to pay a better price than their competitors in the mother-country.

Admitting that normally raw materials will go to the highest bidder, and that Belgians will have to pay for Congolese products, and Frenchmen for Tunisian phosphate, and Englishmen for Australian wool, just as if they were not Belgians, Frenchmen, or Britons, still the question may be raised whether it is not better for a country's foreign exchange and general prosperity, or at any rate if it is not more satisfactory, to pay the purchase price to one's colonial fellow-countrymen rather than to foreigners. Leaving the reader free to answer this delicate question in accordance with his own sentimental predilections or theories of international exchange, we may simply take note of the fact that in a number of rather important instances the premise of this principle is false. The colonial producer is not necessarily a fellow-countryman. Some of the rubber plantations in British Malaya, for example, are owned by the United States Rubber Company, and large plantations in the Dutch East Indies are really British and American. Similarly, in the British mandate of Iraq the oil wells of the Turkish Petroleum Company will pay somewhat less than half their dividends to British investors, the larger share being divided among French, American, and Dutch interests. British capital has an important share in the Katanga mines of Belgian Congo. American capital is interested in African diamonds. British and Belgian capital own productive enterprises in the Portuguese colonies. If the present process of vertical trust-building, by which great industries seek to extend their

ownership over their raw materials, continues, we may expect to see the political map more and more hopelessly blurred by the world-wide network of investments.

There is one more point to be considered here, and it is the pivot of the whole matter. The question is whether through imperialism it is possible and desirable to achieve national self-sufficiency in raw materials. Such self-sufficiency seems to be the goal toward which imperialist efforts tend, and—to change the metaphor—the rock on which imperialist arguments are builded. The answer must be factual rather than theoretical. Let France, with her very large empire, be taken as an illustration and test. Two-thirds of the imports of France are raw materials. But merely one-tenth of those raw materials comes from French colonies. The other nine-tenths France must import from Great Britain, the United States, Germany, Belgium, South America. After fifty-years of active imperialism, France has achieved ten per cent of self-sufficiency—and ten per cent, of course, is not self-sufficiency at all. If a French imperialist heard the statement that the most important colonies of France, from the economic point of view, were the United States, Germany and Great Britain, he would doubtless gasp. But it is true. The chief providers of raw materials for French industry—colonies in that economic sense—are these three Great Powers. France does get over fifty per cent of her cattle, rice, manioc, fish, and ground nuts from her colonies; she gets between ten and fifty per cent of her imported wines, hides, tobacco, rubber, meat, fruits, olive oils; and she gets a small percentage (one to ten per cent) of her wool, wood, cotton, coffee, grain, cacao, lead, sugar. It has been estimated that if colonial supplies were fully developed, and if the price factor were not considered, France could depend on her colonies entirely for her supplies of hides, rubber, vegetable oils, wool, cotton, and some of the metals. But she would still remain dependent on foreign countries for the coal to smelt her iron ore, for zinc and tin, lead, manganese, oil (unless new fields are tapped), nitrate (unless it is made from the air), mercury, platinum, and sulphur, and other rather necessary materials. To annex supplies of all of these would require more than the imperialist genius of a Delcassé.[1]

Other countries would serve equally well to illustrate the point. From its dependencies the United States obtains much sugar,

[1] On these French needs and resources, I have used the *Annuaire statistique* for 1923 and A. Sarraut, *La Mise en valeur des colonies françaises* (Paris, 1923).

fruits, hemp, and tobacco, and some fish, gold, copper, cocoanut oil and minor products; but thus far political expansion has not materially helped to make the United States independent of Malayan rubber, Indian jute, Japanese silk, British tin, Canadian nickel, Canadian asbestos, Australian and South American wool, Indian and Russian manganese, Rhodesian chromite, and other important items on the list of imports. Japan needs raw cotton, iron, rubber, hides, wool, flax and hemp, wood pulp, and oil; but from her colonies she gets little of these, although some day Korea's undeveloped mines may somewhat relieve the demand for copper, iron, and coal. At present Formosa supplies camphor, and some tea, sugar and coal; Korea exports rice, beans, cattle, and gold; Sakhalin is supposed to contain valuable oil and mineral resources. Holland has to import from foreign countries iron, coal, cotton, and various metals; whereas her colonies supply sugar, coffee, tea, cinchona, tobacco, rubber, copra, tin, and oil, enabling the Dutch to act as middlemen, rather than rendering Holland self-sufficient. Italy needs cotton, coal, iron; but colonial supplies are largely in the stage of fervent hopes. Belgian Congo produces, above all, copper, and also palm nuts, gold, ivory, palm oil, diamonds; but Belgium needs coal, various minerals, phosphates, cotton, and other items not supplied in quantity by Congo. Portugal needs coal, cotton, and fertilizers, but her colonies provide coffee, rubber, sugar, cocoanuts, and cacao.

But what of Britain? If her empire is not self-sufficient, surely none can aspire to be so. A few years ago a British scholar compiled statistics showing that the empire produces more than half the world's supplies of a dozen or more minerals, including asbestos, chromite, cobalt, felspar, gold, manganese, mica, nickel, tin, tungsten, molybdenum, monazite; and a substantial percentage of a dozen or so more.[1] In many items it is or could easily become self-sufficient. Yet there remain certain deficiencies, notably cotton, copper, and fertilizers, besides quicksilver, platinum, and sulphur, with which at present even this greatest of all empires does not seem to be able to supply itself. Even if enough cotton were produced, by strenuous efforts, there remain the minerals, which must be discovered if they are to be produced. The British people cannot yet practice the motto, "Keep your money in your own Empire."

Even for Great Britain, but infinitely more so for other empires,

[1] P. Evans Lewin, *The Resources of the Empire and their Development* (British Empire Series), 1924.

self-sufficiency in raw materials seems unattainable, certainly in the near future. And except in the case of Britain and the United States, colonial possessions supply only a relatively small fraction of raw material requirements. If these are the economic facts, it is sheer folly for nations dependent on other Great Powers for the bulk of their supplies to let illusory hopes of imperial self-sufficiency interfere with the international reciprocity and good will which are necessary to their own prosperity.

The whole problem can be viewed from a different angle. The feudal state and city state of the Middle Ages proved too small for the economic facts of early modern times, and were united into national states. The national state of yesterday found itself too small to include the raw materials and markets its industries craved, and so nations expanded into nation-empires. All the Great Powers of to-day are nation-empires rather than simple nations, with the sole exception of Germany, and Germany is a nation against her will. Now the nation-empire finds itself inadequate. Even its expanded frontiers do not include all the needed materials and markets of industry. It is too small. The next step seems to be world-wide international cooperation, reciprocity, and regulation. Nations hesitate to take the step, inevitable as it may be, because public opinion and public sentiment cling to doctrines which were formulated to fit the economic facts of a generation or two generations ago. It takes so long to convert the public to a new doctrine that often the doctrine is out of date before it wins general acceptance. Men were slow to accept the gospel of imperialism which a few professors, business men, and journalists began to preach in the seventies and eighties of the last century, as a solution of the economic problems of their day; but in the end imperialism spread. Now it is being applied, a mid-Victorian policy in a very un-Victorian age.

It is this survival of mid-Victorianism that makes it so difficult to perceive the plain facts of the present situation. We see not the facts but a mid-Victorian mirage. If the mirage could be cleared away, and sentiment laid aside for the moment, two things would become reasonably clear. First, that in increasing the variety and quantity of raw materials that may be used for the comfort of mankind imperialism has performed a very genuine service. Second, that in so far as imperialism attempts to attain monopoly or self-

sufficiency it is running counter both to economic facts and to the international good will on which peace ultimately rests. If these facts may be taken for granted, it is not difficult to argue, that in place of short-sighted antagonisms and rivalry among empires what is needed to-day is the gradual development, through international conferences, of international agreements against unfair practices in the control of raw materials.

INTERNATIONAL FINANCIAL CONTROL OF RAW MATERIALS[1]

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An analysis of the export and import trade of the United States from 1850 to the present time reveals the fact that the percentage of our exports consisting of raw materials and food stuffs has been going steadily down, and that the proportion of our exports devoted to manufactured articles has been going steadily up. On the other hand, the proportion of our import trade consisting of manufactured articles has been going steadily down and the proportion of our imports devoted to raw materials has been going steadily up. This is simply another way of saying that the United States has become industrialized and that the international problems of the United States are the problems of an industrial nation

In the next place be it pointed out that in so far as the problem of raw materials has become an acute problem for the United States, it may be said to be a development of the period since 1910. This same period has been marked by the growth of American foreign investments. These coincidental developments are not to be wondered at because of the obvious fact that one of the purposes of foreign investments is to secure certain, cheap, accessible and independently controlled sources of raw materials

In a sense, therefore, the problems of the United States during the past two decades have been very similar to the problems of Great Britain throughout the nineteenth century. There is a striking similarity between the British cotton industry of Lancashire and the American rubber industry of Ohio. The British cotton industry of Lancashire consumes a very large proportion of the cotton crop of the world, none of which is grown in Lancashire or any other county of Great Britain. Similarly, the rubber industry of the United States consumes a very large proportion of the crude rubber of the world, none of which is produced in Ohio or any other state of the

[1] Reprinted from the Proceedings of the Academy of Political Science, Volume XII, Number 1, July, 1926, pp. 188–196.

American Union. It was the American Civil War which awakened Great Britain to the imperious necessities of this question of supplies of raw cotton and which led to the organization of British cotton manufacturers for the purpose of developing sources of supply under British control. It was the Great War and the financial uncertainty following upon it which aroused the American government and the American rubber manufacturers to seek independent American supplies of crude rubber. It might also be pointed out, by way of following the analogy a little farther, that the British throughout the nineteenth century clung rather tenaciously to a policy of splendid isolation and were eventually obliged to abandon it by reason of imperious economic necessities. The United States continues to cling to its policy of splendid isolation, and it would be a wise man indeed who would prophesy how long the policy will remain within the realm of practicability.

Before 1914 there was a considerable amount of American capital invested abroad in sources of supply of raw materials—principally minerals in Latin America. Of these petroleum stood out conspicuously, but other minerals in Mexico, Chile and elsewhere were also concerned. Then came the war, which in a very real and effective way served to expedite the development of American foreign investments in sources of supply of raw materials.

In the first place, the war itself interfered with the normal flow of commodities as between nations and immediately raised the question whether political control exercised by belligerents during war time might not be projected into peace time by all great industrial nations. The war also brought about the evils of speculation and of fluctuating exchange rates, which made every manufacturer, in varying degree, a speculator in the commodities which went into his finished product. Manufacturers dislike to be speculators in raw materials in addition to being manufacturers of the finished product, and so you found a tendency to evade the evils of speculation and of fluctuating exchange rates by independent control of sources of supply of raw materials. A very homely illustration in this connection was the acquisition of large Cuban sugar plantations by a certain popular chocolate manufacturer in the United States who had no concern with the international implications of such investments but who knew he was being gouged by sugar speculators and who wished to manufacture chocolate and not engage in the

ramifications of speculation in the sugar market. The consequence was that purely wartime conditions tended to accentuate the development of American investments in raw materials.

Simultaneously came a consciousness on the part of the American government that there was a very close correlation between industrial welfare and national defense—a fact which no government can afford to ignore under present conditions. The consequence is that not only during the war but after the war there has been a conscious policy on the part of the government of the United States—and I am concerned principally with that government for the moment; most of us are kept so thoroughly alert by the public press and by our own government officials to the sins of other nations in this respect that they need not be emphasized here—to urge the investment of American capital in independent sources of supply of raw materials, purely because of the national interests which are supposed to be involved.

This has not been a partisan matter by any means. During the last years of Mr. Wilson's administration the government at Washington was very actively concerned with the question of American supplies of raw materials. It was under Mr. Wilson's administration that the Anglo-American controversy regarding petroleum in the Near East reached fever heat.

The Democratic Party platform of 1920 contained the following statement:

> The Democratic Party recognizes the importance of the acquisition by Americans of additional sources of supply of petroleum and other minerals and declares that such acquisition both at home and abroad should be fostered and encouraged. We urge such action, legislative and executive, as may secure to American citizens the same rights in the acquirement of mining rights in foreign countries as are enjoyed by the citizens or subjects of any other nation.

The Democratic party was defeated, as you know, in 1920, but the Republican party has executed that plank of the Democratic platform as faithfully as the Democrats could have executed it themselves.

It is with the name of Mr. Hoover that this policy of the active promotion of American foreign investments in raw materials is principally associated. In 1921 Mr. Hoover is reported to have said to a gathering of American oil producers in his office at Washington: "Unless our nationals reenforce and increase their holdings

abroad, we shall be dependent upon other nations for the supply of this vital commodity (petroleum) within a measurable number of years. The truth of the matter is that other countries have conserved their oil at the expense of our own. We must go into foreign fields and in a big way.'

In 1922 Mr. Hoover was responsible for obtaining from Congress an appropriation of five hundred million dollars to determine to what extent American interests were being squeezed by foreign monopoly. In 1924 Mr. Hoover urged upon Cŏngress the desirability of permitting American manufacturers to enter into combinations, anti-trust legislation to the contrary notwithstanding, for the purchase of raw materials from abroad. Then came Mr. Hoover's rubber outcry of 1925–1926,[1] with which you are familiar. But it was not alone Mr. Hoover who was thus concerned. An attempt was made to have the Tax Bill of 1926 contain a provision exempting income derived from American investments abroad. The State Department has been supervising foreign investments with a view to considering the national interests involved. Presumably American investors could have investments diverted to channels which, in the opinion of the Department of State, might be more important from the point of view of the national interest.

In spite of the conditions of war time, in spite of the financial conditions surviving war time, in spite of the active program on behalf of foreign investments which has been carried on by governmental and other agencies, only a comparatively small proportion of American foreign investments at the present time is to be found in American-controlled supplies of raw materials. That is largely because of the heavy demands upon American capital which come from other sources and which are much more attractive to the investor, as, for example, the huge reconstruction loans in Europe. However, the proportion of certain vital raw materials which are now in the hands of American investors has been growing larger. For example, the nitrate supply in Chile is now about fifteen per cent in the hands of American capital as compared with only about two per cent before the war, and American capital is still buying its way into Chilean nitrate fields. The same thing is true of tin in Bolivia, vanadium in Peru, and sugar in Cuba.

The question as to whether the future will bring increased invest-

[1] Herbert C. Hoover, Statement on Raw Materials, *Trade Information Bulletin*, No. 385, Department of Commerce, Washington, D. C., January, 1926.

ments in sources of supply of raw materials is a difficult one to answer. It consists of prophecy which at the best must be undertaken with very grave reservations. There are those who believe that the falling demand in Europe for reconstruction loans and the increased accumulation of "surplus funds" in the United States by reason of superior industrial efficiency will compel capital to find its way in increasing degree into sources of supply of raw materials. If the governmental policy of encouraging such investments continues, there is perhaps reason to believe that such will be the case. On the other hand, there is the fact that American business men are exceedingly hard-headed. In some cases they do not conceive the national interests to be quite their own interests. They view independent sources of rubber supply, for example, purely from the point of view of the return they may expect upon their investment, not from the standpoint of control of such materials during time of war.

There is, however, something to be said of another aspect of the question which is not so prophetic and not so problematical, and that is this: If it be true in the future that increasing amounts of American capital will find their way into sources of supply of raw materials controlled largely or exclusively by Americans, it will certainly be true that such investments will meet with powerful resistance from a variety of sources. In the first place you will have politically weak countries like Mexico which, fearing the international complications of foreign investments within their borders, will proceed to adopt legislation hostile to such foreign investments. Indeed, as far as Mexico is concerned, such legislation is no longer a probability; it is a fact. And Mexican nationalism will be heightened in proportion as American capital with governmental support finds its way into Mexico.

Politically developed countries, like Canada, fearing the depletion of their natural resources by American investors, will proceed to adopt legislation in the form of export taxes or embargoes upon the shipment of such raw materials outside their own borders. Indeed, as far as Canada is concerned, that is not a supposition; it is already a fact. If such a policy be pursued by Canada and other nations, it will involve not the importation of raw materials into the United States from abroad, but the migration of American industry from the United States to the foreign countries concerned.

In the third place there will be resistance from highly industrialized nations like Great Britain with colonial empires from which they wish to draw their supplies of raw materials. Such resistance will not be without justification. The British may argue that if it is legitimate for us to keep British goods out of our market by a protective tariff, it is proper to keep American capital out of their territories by any legislation which they may see fit to adopt. And if they do adopt such legislation it will become increasingly difficult for American capital invested within the British colonies to carry on its work successfully.

Even in those areas which are under American political control powerful resistance will be felt. It was discovered, for example, by American rubber manufacturers that the proposal to turn the Philippines into a source of supply of rubber was one which the Filipinos were not prepared to accept. American investments in rubber plantations obviously would constitute a reason why the Philippines should not be released from American economic and political control. In addition, such rubber plantations would involve breaking down, first, land legislation designed to protect the Filipinos from foreign ownership and, second, labor legislation designed to protect the Filipinos from coolie labor.

This will leave to the United States as a free field only those areas like Liberia, which can forcibly be brought under American control if necessary. This, after all, is the problem of imperialism.

How are you going to approach this problem of raw materials if it cannot be successfully approached on the lines which have been suggested? It is trite to say that this is an economic rather than a political problem. But it is true nevertheless. In proportion as this is made a political rather than an economic problem it becomes impossible of solution. The policy which the great powers have been pursuing up to the present time is not merely a problem of imperialism, narrowly defined, it is a problem of mercantilism. It is a needless complication of international politics which distributes around the world a considerable amount of political dynamite likely to go off at unexpected times and with disastrous results.

An experiment of some interest is the development of international consortiums for the exploitation of raw materials. There has just recently been consummated one of these international organizations under the name of the Turkish Petroleum Company. After

deliberations extending over several years the Turkish Petroleum Company is now definitely established. It was organized as a British corporation but is hereafter to be an international corporation in which British, American, French and Dutch capitalists are to be interested. Twenty-five per cent of the capital of this corporation is to be in the hands of the Anglo-Persian Oil Company; twenty-five per cent in the Royal Dutch Oil combine; twenty-five per cent in the hands of sixty-seven French companies operating as a unit; and twenty-five per cent in the hands of six large American corporations. This international consortium will take the oil out of Iraq and deliver crude oil to the Mediterranean seaboard, where it will be taken up by the respective companies and refined under their own auspices. It is not an exaggeration to say that an international consortium such as this will operate on behalf of political stability in the Near East and will tend to make the American government less critical toward the British administration in Iraq than heretofore. The settlement of this controversy will doubtless bury the bogy of a secret British or Anglo-French conspiracy to keep American oil prospectors out of the Near East.

In a sense, of course, the problem of raw materials is not peculiarly an international problem. It is a domestic problem as well. Every manufacturer in the United States is concerned with a cheap, a secure and a steady supply of raw materials. Occasionally a manufacturer, charging discrimination, is obliged to build up his own independent sources of supply of raw materials. Mr. Ford is, of course an outstanding illustration; he has built up an industry which is substantially self-sufficient.

But the domestic problem of raw materials is never a problem involving civil war. It is controlled by laws which define unfair competition. There is adequate machinery to enforce those laws and to inflict punishment upon those who flagrantly violate them. There is, of course, a striking difference between the domestic problems of raw materials and the international problem of raw materials. Whereas the domestic problem is defined by well-established ethical and legal standards, the international problem and its political implications, without such ethical and legal standards, are distinguished by a total absence of agreement and law. In the domestic sphere, to be sure, you have frequent departures from the standards of fair competition, but you do not have to resort to economic and

political barbarism in the solution of difficulties or in the punishment of the offender.

Mr. Culbertson, in his book on *International Economic Policies*, has suggested that it is quite within the realm of possibility to develop a code of international economic practice which will define unfair competition; that ultimately it will be quite possible to establish international judicial machinery through which manufacturers, regardless of nationality, may appear as individuals and not as representatives of a particular country for the purpose of enforcing their rights and for the purpose of protesting against discriminatory treatment.

To all of this objection will be raised that it is very well in time of peace but that all standards will break down in time of war. Such an objection is an example of that reasoning in a vicious circle which is a principal obstacle to international progress. It fails to take into account the fact that competitive striving for sources of raw materials is, in turn, one of the prolific causes of war. So you come back to the fundamental proposition, that in so far as we predicate international policies upon the war system we may as well reconcile ourselves from the start to self-inflicted defeat. Unless we are courageous enough to strike out upon the supposition that law can be substituted for the war system we certainly shall get nowhere.

POLITICAL CONTROL OF RAW MATERIALS IN WAR AND PEACE[1]

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We inherited a maternal grandmother—very wealthy—and the grandchildren were very daring. They had inherited a great deal of grandmother's wealth. Some of those grandchildren belonged to a very hardy race, the Scotch race. The Scotchman is the greatest colonizer the world has ever seen. The principal factor about the Scotchman was that, while he was loyal to Scotland and to the British flag, he went into every country of the world and he didn't try to make Scotchmen out of the natives. He married a native woman; nothing in the society that he went into disturbed him in the least. He proceeded along his own way and modified, just as he wanted, the things he wanted, and left everything else alone.

A most conspicuous illustration of that is the Hudson's Bay Company of Canada. You did not have Indian warfare in the Canadian Northwest, because the Scotchman was there. He treated the Indians honestly and won their confidence. We had our wild western situation with its desperadoes, its bandits and its train robbers. Why did not these men, after perpetrating some crime, cross the border and go into the great wilderness of the Northwest? A man could not enter that wilderness without his movements being known within forty-eight hours. If the Northwest police wanted a man they sent out a call for him—every guide, every trapper was a part of that system. It is a most astonishing example of policing a wilderness with a small number of very efficient men. It was a case of pathological nationalism. It was utilized in another country. It is an outstanding example of peaceful penetration.

The subject assigned me is "Political Control of Raw Materials in War and Peace." In peace there is a greater production than can be conveniently utilized, while in war you are unable to meet

[1] Reprinted from the Proceedings of the Academy of Political Science, Volume XII, Number 1, July, 1926, pp. 197–203. Informal address delivered at Round Table No. 9.

the demand for those same materials. That makes a very fundamental difference.

We have talked much of government in business. The war developed some very peculiar sociological tendencies. The man power of the nations at war was assembled. Those who went to industrial works received large wages and indirectly got their money from the government. A large part of the population was represented in some war activity involving a remittance from the government treasury. This support developed unconsciously a form of paternalism, a reliance on the central government and a tendency to appeal to that government for every kind of domestic difficulty. Unfortunately the political elements in a nation are usually not familiar with the practical limitations of paternalism. We face therefore an era of subsidy-seeking and some peculiar interpretations of fundamental economics.

The statement I made last night [see page 21] in regard to the price of wheat was challenged.

In general the peace-time movement of raw materials involves some interesting phases of the law of supply and demand. Take cotton for instance. Galveston is the great cotton port of the world. The exports from Galveston exceeded those from New York, and for the past years about five hundred and fifty to six hundred millions of dollars in cotton annually left the port of Galveston for foreign ports.

Manchester and Bremen were the two great central buyers' markets before the war. The cotton quotations of Liverpool reflected the world prices, and estimates were made of the amount of the cotton crop, the acreage planted, the condition of the crop and hence the possible supply for the year. Probable consumption was also estimated and endeavors were made to study what the future prices—technically termed "futures"—would be. It is unwise for a great consumer in Manchester or a group of consumers to allow fluctuating prices in a world market to entirely determine the cost to them, though they realize the crop of the year and the estimated market for the year will govern the price.

Let us see what industry does to step in and modify, as far as possible, the law of supply and demand. Mr. A's bank at Galveston —he was the agent of the Manchester buyers—would start the early spring planting season by asking for a remittance in advance from

Manchester. The local banks through Texas, Oklahoma, and the great cotton region would receive deposits from Mr. A. The local bank would go out to the cotton grower, the small grower, and in some cases to the local storekeeper, and say, "Jim, you advance money to these fellows that we bought from last year. Here is a list of fellows; we know they are reliable. If they want any money or if they want stores and supplies, furnish them with what they need and take their notes and charge it against the crop."

Consequently, Manchester owned cotton in the ground before it was grown. The price was agreed on in advance so that the consumer was independent of the eventual figures of supply and demand and of the world quotations. He was buying his cotton below the market price and at a fixed price.

You can see, therefore, that there are ways of tempering and regulating supply and demand. Those are actual expedients that are resorted to. The rigid economists cannot see details; they are gradual developments. They are not planned by any one man. They are the outgrowth of necessity.

That method of purchasing would indicate that America had a chance to protest against British capital coming in here and controlling a portion of our cotton crop, over which we had no say. Probably if any one had thought that it was possible for a foreign power to come in here and control some of our planting and control what should be done, a hullabaloo would have been raised. But the system created no disturbance. It was a godsend to everybody. If some of these growers had gone to the local bank and asked to borrow money, they would have been told, "Your credit is no good," or, "We will charge you twenty-five per cent interest and take a mortgage on everything you have." They had a gold mine! Their beneficent grandmother was including them in her remittances. That was a very charitable thing to do for the poor planter. It was a very effective thing to do for the Manchester and the Bremen cotton manufacturers; and yet it would have met with very serious objection had political Washington thought of it.

We used to get our rubber from Brazil. The Pará rubber carried the highest quotation in the rubber market. The native went out into the forests, into the jungle, on his own account and located his rubber trees, tapped them, collected his sap, evaporated it and carried it to the nearest trading post, where he negotiated. They would

reduce the price of his rubber because of impurities—mud and bark and various impurities—and the post trader would bargain in that way. Then the products would be assembled at shipping ports and go down the river.

Some of the natives would be disgusted and decide it was easier to lie around in the sunshine than it was to go off into the jungle. Moreover, when they got prosperous they decided they would not go out because they had made enough. It occurred to some wise men that that was not an infallible supply. It was courting disaster. At that time rubber and hard rubber were used in toilet articles and instruments, but the greatest use was for the insulation of electric wires and cables. As that developed, Pará rubber sometimes reached the price of four dollars a pound. But we did not hear of any international agitation.

Then there came a great industry—the making of automobile tires. There was a question as to whether horse-drawn carriages would ever be supplanted by horseless carriages. But the industry grew and grew and great manufacturers decided to embark in it.

The most singular thing is that no industry in the world with which I am familiar would have invested hundreds of millions, even billions of dollars, and not have provided itself with an adequate supply of raw materials. One of the first things an engineer does in investigating an industry is to study the natural advantages and see whether you have everything that is required—where you are going to secure it, how you are going to transport it, what the present rates are, and what the chances are of the rates changing. But here was an industry that just kept growing, and growing, seemingly indifferent. The automobile industry could not possibly have been developed except for the foresight, the originality and daring of a lone Britisher off there in the jungles of Brazil.

He said, "Why this is pefectly hopeless! They are laying the Atlantic cables and they used up everything we took in last year. If the natives don't go out the supply will be so uncertain we won't be able to provide it again." So he began to assemble the seed of the rubber plant of Brazil. He knew if the government were informed that there might be a question as to whether that seed would ever leave Brazil. But he succeeded in getting his precious seed to England, and in the botanical garden of London the rubber tree of Brazil blossomed and they took some of the seed to Holland for the

botanical gardens there. One day it dawned on some one to take some of this seed from London and plant it in Malaya. And there started that rubber industry.

It takes six or seven years to develop a rubber tree. Probably in five years you may get about a ton of rubber to fourteen or fifteen acres. After maturity that is reduced to something like a ton of rubber to four or five acres.

Remember that in this daring move Americans took no part.

The automobile industry had a sudden collapse in 1921. The rubber plantations of the Malay Straits recognized that a great slump had come and the British Government planned the restriction known as the Stevenson Act. But they made an offer to our manufacturers on a five-year contract, hoping that would average up and enable them to keep the cream of their plantations in production, because plantations return to the jungle very rapidly. We declined that offer for the simple reason that our shrewd traders said: "Rubber is falling and falling rapidly. We can buy all the rubber we want."

But the situation continued only for about two or three years. The hugh demand for rubber, when the automobile industry came back, caused a large advance in price, and the international speculator, always present, seized the opportunity and that created the international situation.

Turning to war control of raw materials you are faced with some peculiar problems. From an economic point of view, some of the situations involving the purchasing power of gold and the necessity of resorting to barter were particularly interesting.

On the advice of Gustav Cassel, the great economist of Stockholm, the Swedish Government took a very unusual stand. They embargoed the importation of gold. They wanted no more gold in the country because it became a basis for expanding credits. The American dollar was worth only fifty cents in Sweden, Holland and Spain, and for anything you purchased you just paid double. It was impracticable to deal with these neutrals on this basis. It was decided that the simplest thing to do would be to petition the Swedish Government for a loan, as they had a surplus of funds. So the United States Government borrowed five million dollars from the Government of Sweden for five years, payable in gold. Sweden seemed to ask no questions. They supposed we wanted a

loan because we needed money—everybody else did—but we did not wish the money for that purpose exactly. It was deposited in the Bank of Sweden and everything purchased in Sweden was paid with a Swedish check at par.

We wanted mules from Spain. Pershing needed some forty thousand mules for artillery. The Germans were very strong in Spain and the small Spanish farmer who owned the mules did not want to part with them. The embassy and the military attachés found it impossible to deal with the Spanish farmer. We had heard rumors that the olive orchards were suffering from lack of fertilizer. They needed some nitrate and we controlled the nitrates. The Spanish orchards were gradually fading away and so our emissaries entered Spain and traded sulphate of ammonia for Spanish mules, and those mules started moving over to the French front. Gold was useless but sulphate of ammonia was a crown jewel.

In dealing with South America a number of years ago, we had a very shrewd sales manager. He took from Cuba a Spanish-American of charming presence and of good birth and education, and after a number of conferences he said he would like to spend three or four months with letters of introduction in this territory that this American corporation was to enter. So he went down and with his letters of introduction visited through the country. He went in and visited as a guest. Then he sent in a request for the best salesman we had who could speak Spanish. He took this salesman with him and returned to the houses where he had been a guest and introduced his friend who was representing an American corporation. The gentleman who first was a guest at the house was, you see, an employee of the corporation. His method of approaching these Spaniards was to meet them socially and not on a matter of business. He could guarantee the friend he was introducing—he would personally guarantee him. The friend was very solicitous as to what these people wanted and consequently the orders came to this country for so many baby carriages and baby cradles, and so on, that the purchasing department of the corporation had to open a new department to deal with domestic articles in order to sell machinery in South America. I doubt if a government, looking only at the sale of machinery, would ever realize that baby carriages and comforters and family clocks and articles of that sort might be more effective than gold in some cases.

Industry readily adopts systems of bartering, recognizing that gold is not the only medium of exchange. It is less easy for governments to barter, and, in general, government control, whether in war or peace, lacks the flexibility and adaptability to which industrial control is accustomed.

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